INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L31/09 H01L31/0224 H01L31/18 H01L33/00 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) H01L IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. 1-4,9, Χ. US 4 696 648 A (SLAYMAN CHARLES W ET AL) 14,15, 17,18, 29 September 1987 (1987-09-29) 21 - 24the whole document X US 5 028 971 A (KIM ANDERSON H ET AL) 1,17,18, 2 July 1991 (1991-07-02) column 1, line 11 - line 16 column 3, line 46 -column 4, line 50 claim 1 figures 1,2 A 23,24 Further documents are listed in the continuation of box C. Patent family members are listed in annex. • Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the *A* document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-ments, such combination being obvious to a person skilled in the art. "O" document referring to an oral disclosure, use, exhibition or document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 14 November 2003 20/01/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 van Norel, J



C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT						
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.				
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 14,	1,19				
	22 December 1999 (1999-12-22) & JP 11 243217 A (NEC CORP), 7 September 1999 (1999-09-07) abstract					
A	US 5 894 125 A (BRENER IGAL M ET AL) 13 April 1999 (1999-04-13) column 1, line 1 - line 8 column 3, line 40 -column 6, line 30	1,15, 17-23				
A	MATSUURA S ET AL: "GENERATION OF COHERENT TERAHERTZ RADIATION BY PHOTOMIXING IN DIPOLEPHOTOCONDUCTIVE ANTENNAS" APPLIED PHYSICS LETTERS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 70, no. 5, 3 February 1997 (1997-02-03), pages 559-561, XP000685259 ISSN: 0003-6951 page 559	1,13,15, 17,19,20				
A	US 5 351 063 A (KIM ANDERSON H ET AL) 27 September 1994 (1994-09-27) column 1, line 1 -column 3, line 46	1,17-20				
A	EP 0 606 776 A (HITACHI EUROP LTD) 20 July 1994 (1994-07-20) abstract figures 1-6	1,17, 19-22				
A	JIANG H ET AL: "GaN metal-semiconductor-metal UV photodetector with recessed electrodes" JPN. J. APPL. PHYS., vol. 41, no. 1A-B, 2002, pages 134-136, XP002261533 cited in the application the whole document	1-3,14, 15,19, 21-23				



Information on patent family members

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Application No

PCT/GB 03/03843

Patent document cited in search report		Publication date	Patent family member(s)		Publication date	
US 4696648	A	29-09-1987	DE EP JP US	3278606 D1 0063422 A2 58012378 A 4593304 A	07-07-1988 27-10-1982 24-01-1983 03-06-1986	
US 5028971	Α	02-07-1991	NONE			
JP 11243217	А	07-09-1999	NONE	*		
US 5894125	Α	13-04-1999	NONE			
US 5351063	Α	27-09-1994	NONE			
EP 0606776	A	20-07-1994	EP	0606776 A2	20-07-1994	